

20U514

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Name:

Reg.No:

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19U CHE5 B06 - INORGANIC CHEMISTRY - III

(Chemistry - Core Course)

(2019 Admission onwards)

Time : 2.00 Hours

Maximum : 60 Marks

Credit : 3

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. Explain the following terms with examples: (a) Pseudohalides (b) Polyhalides
2. What happens when XeF_4 reacts with water?
3. What is sanitary landfill?
4. What are silicones?
5. What are phosphazenes?
6. Give one method of preparation of tetrasulphur tetranitride.
7. Explain the reaction that occurs and the nature of products obtained when AgCl is treated with $\text{Ba}(\text{NO}_3)_2$ in liquid ammonia.
8. What is meant by calcination?
9. What is the principle of behind the zone refining of metals?
10. Write two adverse effects caused by the pollution of water by fertilizers.
11. Explain the significance of determining the DO in a water sample.
12. Discuss the different types of light pollution.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer *all* questions. Each question carries 5 marks.

13. Explain the three general methods for the preparation of interhalogen compounds.

14. Explain briefly about plastic pollution.
15. Describe how solubility product principle and common ion effect are applied in qualitative inorganic analysis.
16. Give an account of precipitation gravimetry.
17. What are intramedullary rods? Discuss their applications.
18. Discuss the formation and detrimental effect of photochemical smog.
19. Discuss the pollution of water by any two heavy metals and its adverse effects.

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

20. Write the main ores of aluminium. Discuss the extraction of aluminium from bauxite ore.
21. Explain the cause, consequences and control measures of thermal pollution.

(1 × 10 = 10 Marks)
